

Beneath the Silence: Exploring the Communicative Profiles of Children with Selective Mutism (SM)

Despite progressions in the field toward a better understanding of SM, misperceptions still exist; current research on SM focuses on the child's failure to speak as a behavioral problem stemming from anxiety. However, research suggests that underlying difficulties with language may be present in a substantial minority of children with SM, and may contribute to their clinical presentation. With the hope of demystifying SM, we explored the communicative profiles of 60 children with SM, using data collected from the Children's Communicative Checklist-2 (CCC-2).

The current study has two important findings: firstly, that most children with SM have the structural language skills necessary to communicate at a normal level, as evidenced by Average scores on the CCC-2 sub-scales. At the same time, a substantial minority of children with SM (approximately 40%) experience difficulties in the use of pragmatic language skills. These difficulties overlap with those seen in autism spectrum disorders and other disorders of social communication. Thus, there is a potential for children with SM to be misdiagnosed with possible ASDs, as the nature of their social communication difficulties may be misunderstood. Therefore, a comprehensive evaluation exploring the social communication profile, pragmatic language skills, and underlying social-emotional functioning of a child with SM is critical in obtaining an accurate understanding of the child's clinical picture.

BENEATH THE SILENCE – EXPLORING THE COMMUNICATIVE PROFILES OF CHILDREN WITH SELECTIVE MUTISM USING THE CCC-2

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Name	Mean	Classification	Range of Score	2.5th Percentile	50th Percentile	Mean	95th Percentile	1.75th Percentile
Communicative Subscale								
A1 Speech	3.833	well below the majority of others	1-10	2.076	2.54	73.67%	11.97%	0%
B Sentence	12.533	well below the majority of others	6-16	9.4	13.355	78.33%	33.33%	0%
C Semantic	13.455	well below the majority of others	1-17	2.976	11.676	56.67%	28.97%	13.33%
D Grammar	10.433	well below the majority of others	1-15	3.333	6.676	66%	33%	0%
E Fluency	11.267	well below the majority of others	7-18	9.4	12.673	73.67%	28.97%	0%
F Structural Language	13.75	well below the majority of others	1-15	9.4	16.6	63.33%	21.67%	0%
G Content	8.55	well below the majority of others	1-13	2.076	10.333	78.33%	11.97%	0%
H Pragmatic Communication	7.817	right below the majority of others	1-12	1.04	12.416	56.67%	0%	0%
I Pragmatics	13.217	well below the majority of others	4-15	9.4	16.676	56.67%	21.67%	0%
J Use of Functions	7.667	right below the majority of others	1-13	5.5	11.676	63.67%	11.97%	0%
Communicative Composite								
CCC-2 overall composite	12.55	well below the majority of others	10-18	11.04	15.4	63%	13.67%	14.67%
SDC - non expressive sub-scale	8.706	well below the majority of others	27 out of 30	8.06	10.333	63%	0%	0%

Introduction

Despite progressions in the field toward a better understanding of Selective Mutism (SM), misperceptions of the child with SM still exist. Many see the child with SM as being selectively defiant or as more of a child of language skills. Current research on SM focuses on the child's failure to speak as a behavioral problem stemming from anxiety. Research shows that children with SM have linguistic skills, they just struggle to use them in a social context due to anxiety, and, for some, co-morbid language impairment. An understanding of both the child's anxiety, as well as their communicative profile is critical to the child's prognosis. According to SM treatment expert, Dr. Ellen Shipon-Blum (2017), "selective mutism is a social communication anxiety disorder, with specific reasons for its development and maintenance. Speech and language disorders are one reason why a child may develop SM, but it is not the reason why it is maintained." These deficits influence the clinical presentation of SM. Cohen and colleagues (2008) found that children with anxiety and co-morbid communication delays scored worse on measures of expressive and receptive communication compared to those who had anxiety disorders alone and those with anxiety disorders and co-morbid oppositional behaviors. These findings are common across the literature, and specific language deficits have been found in more than 30% of clinically referred children with SM (Wittmann, 2000; Fombonne et al., 1992; Steingard & Katz, 1976; Wilkins, 1983; Kras and colleagues (2013) found expressive narrative language deficits in 47% of the children with SM they assessed. Additionally, emphasizing the effect of anxiety on a child's use of linguistic skills, these deficits were found to be more pronounced when evoked by a speech-language pathologist than when parents were trained to administer test stimuli. These deficits were also found to represent impairments in pragmatic language skills, rather than the more basic structures of language. Nevertheless, many children with SM do not receive adequate speech-language evaluations, often due to the presumption that the child is intentionally being defiant or rather than trying to accommodate the child by reducing anxiety first, the evaluator pushes the child to speak, which makes the child more anxious. As a result, the necessary information is not obtained. Research demonstrates that comfort and anxiety reduction may precede communication for children with SM. However, for many children, it is more going on beneath their silence. The current study seeks to examine the communicative profiles of children with SM, as reported by their parents on the Children's Communication Checklist 2 (CCC-2). One purpose of this study is to evaluate the use of the CCC-2 to screen for possible speech and language delays or difficulties in this population. It is hypothesized that the results may slightly underestimate the true prevalence of speech and language difficulties in children with SM, as parents are often the ones who see the child's communication at its best. The goal of this study is to add to the research literature supporting the need for comprehensive assessment of children with SM.

Conclusion

Two important findings emerge from this study. Firstly, this study found that the majority of children with SM in this sample have the structural language skills necessary to communicate at a normal level, as evidenced by Average scores on the CCC-2 subscales. At the same time, approximately one-third of children with SM in this sample experience difficulties in the use of pragmatic language skills. These difficulties overlap with those seen in ASDs and other disorders of social communication. Thus, there is a potential for children with SM to be misdiagnosed with ASDs, as the nature of their social communication difficulties may be misunderstood. Therefore, a comprehensive evaluation exploring the social communication profile, pragmatic language skills, and underlying social-emotional functioning of a child with SM is critical in obtaining an accurate understanding of the child's clinical picture. It is evident in these results that the social and pragmatic use of language is, in fact, more challenging for children with SM than the use of structural linguistic skills. Specifically, significantly lower scores were found in Non-Verbal Communication and in Social Relations. Our data suggests that approximately one-third of children with SM may show delays or deficits in the social use of language, despite intact structural language skills. Furthermore, these ratings were completed by parents, who presumably saw the child's communicative profile at its best. Thus, our findings of deficits in social communication for a substantial minority of children with SM are highly significant. Further research should explore the communicative profiles of children across various settings and levels of comfort. Future directions should include comparing the CCC-2 caregiver reports with those completed by teachers, in collaboration with public setting observation of the child in uncontrolled settings, where they are exposed to strangers). The school setting is of interest, as there are heightened expectations of complex speech, and a variety of linguistic abilities, such as persuasion, debate, and explanation of one's personal thought. Future directions should focus on bettering both the frame of the literature, by no longer seeing the child with SM as defiant, as well as the approaches used by parents, by ensuring the communication assessment of all aspects of a child with SM, including a speech and language evaluation and assessment for differential diagnosis between SM and ASD.

Methods

Data was collected from 60 new patients at a treatment center for children with SM in the greater Philadelphia area. They were mostly female (50 males, 10 females) and Caucasian (58 non-Caucasian, 2 Asian, 2 African American, 2 Hispanic, 2 Other), with a mean age of 7.77 (ages ranged from 4-17). The assessment used was the Children's Communication Checklist (CCC-2; Bishop, 2001), a 70-item parent or teacher report checklist designed to demonstrate communicative strengths and difficulties in children aged 4 to 17. Scores from parent reports on the CCC-2 can be used as indicators for language ability, and specifically, communication disorders below 50, any pragmatic difficulties, such as those seen in Autism Spectrum Disorder (ASD) or Social Pragmatic Communication Disorder (SPCD). For scores we exceeded, which included scores of 50 or above, we also collected data on the non-verbal communication and language for ASDs (social relations and interest). For the purpose of this study, we chose the Communicative Composite (CCC-2), which is the sum of all of the subscale scores, and the Social Interaction Difficulties Index (SDI), which is the difference between the pragmatic index and the structural language index, were also collected. Data collection began in September of 2016 and was completed in October of 2017.

Results

Descriptive analyses indicated that, on a group level, 56% (n=34) had the majority of others, when rates by age groups. For most of the communicative subscales of the CCC-2, mean scores for the sample fell in the average range. However, the mean scores fell in the right tail (below Average range) on the scales of Social Relations (M=7.75) and Non-Verbal Communication (M=7.52). Upon further examination of the Non-Verbal Communication subscale, it was found that 24.19% of the sample fell between 1 and 2 standard deviations below the mean, and 8.82% fell below 2 standard deviations of the mean, for a total of 33.01% of the sample. Additionally, on the Social Relations subscale, 25.00% of the sample fell between 1 and 2 standard deviations below the mean, and 5.83% of the sample fell below 2 standard deviations below the mean, for a total of 30.83% of the sample. Significant elevations were found on the subscales of Speech, Syntax, Semantics, Content, Pragmatics, Social Language and Interest, a range of 14.21 – 32.35% of the sample score 1-2 standard deviations above the mean. Additionally, 5.83% scored over 2 standard deviations above the mean on Semantics, and 5.83% scored over 2 standard deviations above the mean on Pragmatics. In regards to SM, our findings of underlying pragmatic difficulties, as on the SDC and SIFDC. The sample mean of our population was within normal limits on the SDC, composite score determined by the difference between structural language and pragmatic language subscales, z-score 0.205 < 2.326. While the mean score was within normal limits, it should be noted that 25.83% of this sample received a score of -1 or lower, suggesting a communicative profile similar to those with ASD. However, the communicative profile of this sample varied from the overall sample profile of those with ASD as the literature estimates that 26.27% of this sample actually scored 1-2 standard deviations above the mean in non-ASD related areas such as Social Relations and Interests. No single participants had a non-verbal quotient of an ASD.

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